

REMARKS

The claims have been amended to remove the multiple dependencies listed therein. Claims 1-6 are pending in this application. Claims 5-6 have been added.

Conclusion

Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Marc S. Weiner (Reg. No. 32,181) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: December 30, 2005

Respectfully submitted,

By 

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CLAIMS

1. (Currently amended) An epitaxial growth method to form a semiconductor thin film including a heterojunction of a group III-V compound semiconductor by means of molecular beam epitaxy, the method comprising:

a first step of irradiating a molecular beam of at least one of group III elements and a molecular beam of a first group V element to form a first compound semiconductor layer;

a second step of stopping the irradiation of the molecular beam of the group III element and the molecular beam of the first group V element to halt growth until an amount of the first group V element supplied is reduced to 1/10 or less of that in the first step; and

a third step of irradiating a molecular beam of at least one of the group III elements and a molecular beam of a second group V element to form ~~a second compound semiconductor layer~~ an etch stopper layer on the first compound semiconductor layer, the etch stopper layer being composed of the a second compound semiconductor layer being which is different from the first compound semiconductor.

2. (Currently amended) An epitaxial growth method to form a semiconductor thin film including a heterojunction of a group III-V compound semiconductor by means of

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molecular beam epitaxy, the method comprising:

a first step of irradiating a molecular beam of at least one of group III elements and a molecular beam of a first group V element to form a first compound semiconductor layer;

a second step of stopping the irradiation of the molecular beam of the group III element and the molecular beam of the first group V element and irradiating a molecular beam of a second group V element to halt growth until an amount of the first group V element supplied is reduced to 1/10 or less of that in the first step; and

a third step of further irradiating a molecular beam of at least one of the group III elements to form ~~a second compound semiconductor layer~~ an etch stopper layer on the first compound semiconductor layer, the etch stopper layer being composed of the a second compound semiconductor layer being which is different from the first compound semiconductor.

3. (Original) The epitaxial growth method as claimed in any one of claims 1 and 2,

wherein the first compound semiconductor layer is any one of an InAlAs layer and an InGaAs layer and the second compound semiconductor layer is any one of an InP layer and an InGaP layer.

4. (Original) The epitaxial growth method as claimed in any one of claims 1 and 2,

wherein the first compound semiconductor layer is any one of an InP layer and an InGaP layer and the second compound semiconductor layer is any one of an InAlAs layer and an InGaAs layer.

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